

Appl. No. 10/711,598  
Reply to Office Action Mailed 09-29-2006

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REMARKS

DEC 20 2006

Drawings

The drawings are objected to as failing to comply with 37 C.F.R. 1.121(d). Proposed corrections are submitted herewith, as well as replacement sheets 1, 2 and 5 reflecting the corrections.

Furthermore, the drawings are objected to as failing to comply with 37 C.F.R. 1.84(p)(5). Specifically, FIGS. 3 and 6 are objected to as including certain reference characters not provided in the description. FIG. 3 is corrected to reflect the deletion of these reference numerals. As for FIG. 6, Applicants note the inclusion of reference numerals 65 and 66 on page 10, second paragraph ("curve 65, 66"). The reference numeral 62 is, however, deleted from FIG. 6. FIG. 6 is also objected to because the reference character "63" has been used to designate both the formation and the "near" detector. Applicants have corrected this by changing the "formation" detector to 63'.

Withdrawal of the objections to the drawings is respectfully requested.

Specification

The specification is also objected to due to certain informalities. The required corrections are submitted herewith.

Withdrawal of the objections to the specification is respectfully requested.

Claims

Claims 2-5 and 7-11 are objected to due to certain informalities. These informalities is addressed in the submitted claim amendment. Withdrawal of this objection is respectfully requested.

Claims 1-11 are pending in the present application. Each of these claims is rejected under 35 U.S.C. §103(a), as being unpatentable over Spross, et al. (U.S. Patent No. 5,451,779) in view of Van Den Bergh (U.S. Patent No. 5,452,772). Applicants respectfully traverse these rejections.

As indicated in the Office Action, Spross, et al. does not disclose a tool having at least one movable section disposed between the energy source and the receiver in respect to the method of amended claim 1. Applicants further submit, however, that Spross, et al. does not

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teach or suggest the step of "activating the at least one movable section to move outwardly from the tool to fill the gap between the tool and a wall of the borehole and to reduce a thickness of at least one selected from a mud layer and a mud cake between the downhole tool and a wall of the borehole", as also required by claim 1. In respect to claim 6, Applicants submit that Spross, et al. does not teach or suggest the claimed movable section disposed between the energy source and the receiver, and an activation mechanism for deploying the moveable section to fill the gap between the tool and a wall of the borehole and reducing a thickness of at least one selected from a mud layer and a mud cake between the downhole tool and wall of the borehole.

The Office Action cites Van Den Bergh as supplying the requisite "downhole device which features a movable section." It is also indicated that the stated problem of reducing standoff effects in gamma ray measurements are discussed by Spross, et al. including the solution of using movable parts. Applicants respectfully disagree with the logic behind combining Van Den Bergh with Spross, et al., to produce the claimed method and tool.

Although Spross, et al. discusses the problem of standoff effects, neither Spross, et al. nor Van Den Bergh suggests the use of movable sections "fill in the gap between the tool and the wall of the borehole and to reduce a thickness of at least one selected from a mud layer in a mud cake between the downhole and a wall of the borehole." Spross, et al. discusses the use of a backup arm or spring to apply a decentralizing force to the tool to address the offsetting of the detectors from the borehole. The backup arm or spring is used to cause the detectors to engage the borehole wall (not to fill the gap between the tool and the borehole wall). It is not clear whether the backup arm or spring could be made moveable to fill the gap between the tool and the wall of the borehole. It seems, however, that, to bring the detector against the borehole wall, the backup arm or spring is moved into the borehole space opposite of the detector and thus, would not be disposed between an energy source and a receiver, as required by claim 1.

It is also known to provide a detector on an articulated pad that is moveable to engage the borehole wall. Such a "moveable section" could not be construed as being disposed "between the receiver and an energy source," if the detector is on the moveable articulated pad.

Applicants admit that it is known to move a tool within the borehole, as in Spross, et al. It is also known to provide the receiver or detector on the moveable section so as to address standoff effects. Neither Spross, et al. nor Van Den Bergh suggest, however, providing the movable section between the energy source and the receiver and then, activating the moveable section to "fill the gap between the tool and the wall" and "to reduce the thickness of the mud

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cake or mud layer therebetween." Specifically, there is no suggestion in Spross, et al. or in Van Den Bergh to deviate from conventional design and configure the receiver and moveable section so that the moveable section is disposed between the energy source and receiver, i.e., take the receiver off the moveable section.

Furthermore, with reference to FIG. 2 of the Spross, et al. reference, there is no teaching as to how to incorporate the spring or lever of FIG. 10 in Van Den Bergh onto the tool 10 of Spross, et al. such that the spring or lever is disposed and operable between the energy source 16 and receiver 14. In fact, it appears that providing this modification, would interfere with the collimator passages 20a and 24a, which are central design features of the Spross, et al. invention. Thus, there is no apparent motivation or incentive for combining any moveable mechanisms in Van Den Bergh with the tool of Spross, et al.

In view of all of the above, the combination of Van Den Bergh and Spross, et al. does not provide a proper basis for a §103 rejection.

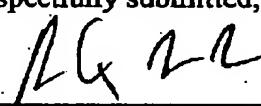
The claims pending in the application are, therefore, believed to be in condition for allowance. The Examiner is respectfully requested to pass the application to issue.

No fee is believed to be due at this time. If the appropriate Petition for an Extension of Time is not attached hereto (or any other Petition required of the application), this statement shall serve as Applicants' Petition to the U.S.P.T.O. The Commissioner is hereby authorized to charge any additional fees or credit any overpayments related to this Response to Deposit Account No. 190610 (24.0914), maintained by Schlumberger Technology Corporation.

The undersigned is available for consultation at any time, if the Examiner believes such consultation may expedite the resolution of any issues.

Respectfully submitted,

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Alberto Q. Amatong, Jr.  
Registration No. 41,580  
Morris & Amatong, P.C.  
10260 Westheimer, Suite 360  
Houston, Texas 77042-3110  
Telephone: (713) 334-5151  
Facsimile: (713) 334-5157  
ATTORNEY FOR APPLICANTS